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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/711,081

08/20/2004

Dennis Scott Prince

5080

7590

10/20/2005

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Edmonton, T6K 2S4
CANADA

EXAMINER

BELLAMY, TAMIKO D

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/711,081

Applicant(s)

PRINCE, DENNIS SCOTT

Examiner

Tamiko D. Bellamy

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-15 and 17-26 is/are rejected.
- 7) ☒ Claim(s) 3 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Oath/Declaration

1. It does not identify the citizenship or contain a signature of each inventor.

Drawings

2. The informal drawings are not of sufficient quality to permit examination. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Applicant is given a TWO MONTH time period to submit new drawings in compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a). Failure to timely submit replacement drawing sheets will result in ABANDONMENT of the application.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the sensor array of **emission sensors** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure

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must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 5, 9, 14, 17, and 19 are objected to because of the following informalities:
 - a. Claim 5, line 2, change the word "know" to – known--.
 - b. Claim 9, line 2, change the word "know" to – known--.
 - c. Claim 14, line 12, change the word "know" to – known--.
 - d. Claim 17, line 2, change the word "know" to – known--.
 - e. Claim 19, line 3, change the word "know" to – known--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 1, 11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Jack et al. (5,719,396).

Re claim 1, as depicted in figs. 1 and 2, Jack et al. discloses positioning a sensor array (22, 32) of emission sensors (e.g., IR detectors) in spaced relation (e.g., spaced path 40) at fixed location about a facility and monitoring the emission readings from the sensors (22, 32). Jack et al. discloses performing a spatial temporal emission concentration analysis to identify the source of emissions (Col. 4, lines 43-55).

Re claims 11 and 14, Jack et al. discloses the invention improve testing accuracy because spaced apart first and second monitoring stations (22, 32) form a check against each other to remove temporal test errors (Col. 4, lines 43-51), which is equivalent to multiple redundant sensors used to improve the accuracy and identify sensors with erroneous readings.

7. Claims 1, 2, 4-10, 12, 15, 17, and 19-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Zaromb (5,106,756).

Re claim 1, as depicted in figs. 3 and 5, Zaromb discloses positioning a sensor array (30) of emission sensors in spaced relation at fixed location about a facility and monitoring the emission readings from the sensors (A-C). Zaromb discloses performing a spatial temporal emission concentration analysis to identify the source of emissions (Col. 3, lines 44-67).

Re claim 2, Zaromb discloses a portable detection system in which the calibrated sensor array is used.

Re claim 4, Zaromb discloses electrochemical sensors.

Re claim 5, Zaromb discloses superimposing known emission concentrations upon the sensor (A-D) (Col. 5, lines 45-68, col. 6, lines 10-20).

Re claims 6-9, Zaromb discloses superimposing a gas compound that will react with the emission concentrations/gas and the sensor will measure the reaction products as a way to amplify or isolate the signal from the gas of interest (Col. 5, lines 45-68; Col. 6, lines 25-41).

Re claim 10, Zaromb discloses emission specific filter(s) (39).

Re claim 12, Zaromb discloses measuring different gases.

Re claim 15, Zaromb discloses a portable detection system in which the calibrated sensor array is used.

Re claim 19, Zaromb a sensor adapted to monitor a selected emission; and an emission module adapted to superimpose known emission concentrations upon the sensor during a monitoring cycle to enhance and verify sensor activity (Col. 6, lines 10-19).

Re claim 20, Zaromb discloses electrochemical sensors.

Re claim 21, Zaromb discloses varying the superimposed known emission concentrations to verify sensor concentration (Col. 6., lines 10-20).

Re claim 22, Zaromb discloses an emission specific filter (39).

Re claim 23, Zaromb discloses superimposing a gas compound that will react with emission concentration and the sensor will measure the reaction products as a way to isolate the signal from the gas of interest (Col. 5, lines 51-68, Col. 6, lines 10-20).

Re claim 24, Zaromb discloses superimposing a gas compound that will react with a gas that causes interference as a way to remove the interference and amplify of

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isolate and the sensor will measure the reaction products as a way to isolate the signal from the gas of interest (Col. 5, lines 25-30, and 51-68, Col. 6, lines 10-20).

Re claim 25, Zaromb discloses superimposing a gas that will coat the surface of the sensor with the reaction products that make the sensor hyper-sensitive or hyper-specific to the gas of interest (Col. 6, 10-20).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaromb (5,106,756) in view of Mifsud et al. (5,918,257).

Re claims 13 and 16, Zaromb discloses calibrating a sensor array (30). Zaromb lacks the detail of providing a humidity module to maintain the sensor operation at an ideal operational humidity level. Mifsud et al. discloses a humidity module (e.g., humidity sensor) in order to measure respectively the level of humidity (Col. 6, lines 66-67; Col. 7, line 1). Therefore, to modify Zaromb by employing a humidity module would have been obvious to one of ordinary skill in the art at the time of the invention since Mifsud et al. teaches a semiconductive gas detector having these design characteristics. The skilled artisan would be motivated to combine the teachings of Zaromb and Mifsud et al. since Zaromb states that his invention is applicable to

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calibrated sensor arrays in a portable detection system and Mifsud et al. is directed to a plurality of gas-sensors in a compact and portable (Col. 10, lines 5) device.

Allowable Subject Matter

10. Claims 3 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamiko D. Bellamy whose telephone number is (571) 272-2190. The examiner can normally be reached on Monday - Friday 7:30 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamiko Bellamy

T.O.
October 13, 2005

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